

FAIL INSTRUCTION TO SUPPORT TRANSACTIONAL PROGRAM EXECUTION

ABSTRACT

One embodiment of the present invention provides a system that supports executing a fail instruction, which terminates transactional execution of a block of instructions. During operation, the system facilitates transactional execution of a block of instructions within a program, wherein changes made during the transactional execution are not committed to the architectural state of the processor until the transactional execution successfully completes. If a fail instruction is encountered during this transactional execution, the system terminates the transactional execution without committing results of the transactional execution to the architectural state of the processor.